

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1. - 11. (Canceled)

12. (New) A radiation detector comprising a photodiode (2) and transistor (3) connected in series, a load (4) and an interrogation pulse generator (1), wherein the load (4) is connected to the photodiode (2) through a signal electrode, and from the other side said load (4) is connected to the common bus, the second photodiode (2) electrode is connected to the first electrode of the transistor (3), the control electrode of which is connected to the output of the interrogation pulse generator (1); and the third transistor (3) electrode is coupled with the common bus; wherein the radiation detector is adapted such that a charge corresponding to a radiant flux incident to the photodiode (2) flows through the load (4), when an interrogation pulse of the interrogation pulse generator (1) is supplied to the control electrode of the transistor (3).

13. (New) The radiation detector according to claim 12, characterized in that N groups of elements ($8_1, \dots, 8_N$), each consisting of the series-connected photodiode (2) and transistor (3), are placed in parallel with the load (4), and the interrogation pulse generator (1) comprises N outputs, each of the outputs being coupled with the transistor (3) control electrode from the respective group of elements, where N is an integer > 1 .

14. (New) The radiation detector according to claim 13, characterized in that said detector comprises L loads, with N_i groups of elements being placed in parallel with each i-th load, and the total number of groups of elements contained in said detector equals the number of N outputs of the interrogation pulse generator (1), where L is an integer > 1 , N_i is a positive integer.

15. (New) The radiation detector according to claim 14, characterized in that capacitors (7) are connected in parallel with photodiodes (2).

16. (New) A radiation detector comprising a radiation-sensitive element (2) and a load (4), with said sensitive element (2) being connected to a supply voltage bus at one side, and the load being connected to a common bus at one side, wherein said detector additionally comprises a transistor (3), a capacitor (7) and an interrogation pulse generator (1), with the sensitive element (2) being connected to the first electrode of the transistor (3) at the other side and to the first plate of the capacitor (7), the second plate of which is connected to a signal contact of the load (4), and the output of the interrogation pulse generator (1) is coupled with the control electrode of the transistor (3), the third electrode of which is connected to the common bus, wherein the radiation detector is adapted such that a charge corresponding to a radiant flux incident to the radiation-sensitive element (2) flows through the load (4), when an interrogation pulse of the interrogation pulse generator (1) is supplied to the control electrode of the transistor (3).

17. (New) The radiation detector according to claim 16, characterized in that N groups of elements, each consisting of the series-connected radiation-sensitive element (2) and a transistor (3), the common point of which is coupled to the load (4) signal output via the capacitor (7), are connected between the supply voltage bus and common bus, and the interrogation pulse generator (1) comprises N outputs, each of the outputs being connected to the transistor (3) control electrode from the respective group of elements, where N is an integer > 1 .

18. (New) The radiation detector according to claim 17, characterized in that said detector comprises L loads, with a signal contact of each i-th load being connected to N_i groups of elements, and the total number of groups of elements said detector comprises being equal to the number of N outputs of the interrogation pulse generator (1), where L is an integer > 1 , N_i is a positive integer.

19. (New) The radiation detector according to claim 18, characterized in that resistors (5) are connected between the sensitive elements and common points of the transistors and capacitors.

20. (New) A radiation detector comprising a radiation-sensitive element (2) and a load (4), with the sensitive element (2) being connected to the supply voltage bus at one side and the load (4) being connected to the common bus at one side, wherein said detector additionally comprises a transistor (3) and an interrogation pulse generator (1), with the sensitive element (2) being connected to the first electrode of the transistor (3) at the other side and the output of the interrogation pulse generator (1) being connected to the control electrode of the transistor (3), the third electrode of which is coupled with the load (4) signal contact, wherein the radiation detector is adapted such that a charge corresponding to a radiant flux incident to the radiation-sensitive element (2) flows through the load (4), when an interrogation pulse of the interrogation pulse generator (1) is supplied to the control electrode of the transistor (3).

21. (New) The radiation detector according to claim 20, characterized in that a capacitor (7) is connected between the first transistor (3) electrode and the common bus.

22. (New) The radiation detector according to claim 21, characterized in that a resistor (5) is connected between the transistor (3) first electrode and the sensitive element (2).